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MISSOURI VALLEY COLLEGE.

Quarterly Bulletin.

VOL. I. JANUARY, 1902. No. 4.

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THE COLLEGE QUARTERLY BULLETIN

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BULLETIN

OF

Missouri Valley College.

JANUARY, 1902.

Marshall, Missouri.

TO TEACHERS.

THE SPRING QUARTER

BEGINS FEBRUARY 27 AND ENDS MAY 22.

THE SUMMER QUARTER

BEGINS MAY 22 AND ENDS AUGUST 13.

Teachers who wish to get ahead in their work will find it a great advantage to attend Missouri Valley College during either or both of these quarters. If interested write and learn particulars. Note in this Bulletin the schedule of the Spring Quarter. The schedule of the Summer Quarter will be given in the April Bulletin. Write for the April Bulletin. The Summer Quarter will be divided into two terms of six weeks each.

THE MISSOURI STATE TEACHERS' ASSOCIATION.

The State Association was held in the Central High School building, Kansas City, Mo., December 26, 27 and 28, 1901. There was a large attendance. The audience at the general sessions numbered from a thousand to fifteen hundred people. The meeting was characterized by harmony and hard work. The faculty of Missouri Valley College was well represented in the program. Dr. Black spoke in the general session on Friday and presided over the College and University section in the afternoon. Prof. Grube presided over the meeting of the Archæological Institute. Prof. Penick read a paper in the Science section. Prof. Evrard discussed the teaching of history in the History department. Miss Walker was also present at the meeting.

As an indication of the part Missouri Valley College is taking in the educational work of Missouri, and as an exhibit of the opinions held by the individual professors upon live questions connected with various phases of education, this number of the BULLETIN is devoted to the publication of these reports and papers. They should interest a wider circle of readers than those which belong to the teaching profession.

THE MEETING OF THE COLLEGE SECTION.

In the absence of the chairman, Dr. Black was asked to preside. A very suggestive paper was read by Pres. Homer T. Fuller, of Drury College, on "The Construction and Equipment of College Buildings." The paper drew out a very practical discussion. Two things were made very plain: (1) That there are very few architects who are competent to design college buildings; and (2) that it is exceedingly difficult to find proper supplies for fitting up a modern laboratory. Pres. Lowell M. McAfee, of Park College, read a paper on "Wastes in Education," which was very valuable. The discussion was quite lively and awakening. The attendance was good. Dr. C. M. Woodward, of Washington University, was elected President for the ensuing year.

WM. H. BLACK, Chairman.

THE MEETING OF THE ARCHÆOLOGICAL INSTITUTE.

The Missouri society of the Archæological Institute of America met at Kansas City in connection with the State Teacher's Association December 27, 1901. Three carefully prepared papers were read before the meeting. Prof. W. J. S. Bryan, St. Louis, discussed in his paper, "Latin in the High Schools." Miss Eva Johnston, Columbia, the "Teaching of Latin Composition." Prof. W. G. Manley, Columbia, "The Location of Homeric Ithaca." Some discussion was had on these papers by the members of the society. It was voted unanimously to unite what has been known heretofore as the Classical Association of Missouri with the Archæological Society, for the members of the one are the members of the other.

The object of this society is to further the interest of Archæological study in the state of Missouri and therefore the society earnestly hopes that all persons interested in this subject will either become active members or associate. Every year two or three lectures are delivered before the society by distinguished Archæologists from abroad free of charge. At the

meeting in Kansas City, rules and regulations were adopted governing the society. The next meeting will be held in St. Louis, Dec. 30, 1902. Officers for the ensuing year: President, Prof. W. G. Manly, State University; Vice-President, Prof. F. A. Hall, Washington University; Secretary, Prof. C. E. Miller, Principal St. Joseph High School, and Treasurer, Prof. W. E. Grube, Missouri Valley College. The meeting just closed was one of the best in the history of our society. W. E. GRUBE, Chairman.

IS THE CULTURE SIDE OF EDUCATION ENDANGERED BY STRESSING INDUSTRIAL EDUCATION?

Industrial education is here. It is here to stay. That does not prove, however, that it is impeccable, ideal, or all-sufficient. What I say must not be construed as opposition to it, but as a serious criticism of its relation to culture. Moreover, I did not suggest this subject, but was asked to discuss it. I have consented to do so realizing that I might thus voice a feeling that is in many minds, namely, that industrial education is not an entirely adequate system.

What I shall say will be in some degree a criticism of ideals. Man is to be judged by his ideals, because what he does is the output of his heart. "Out of the heart are the issues of life." "Out of the heart proceed evil" things of all sorts.

Ideals are composite and may be rendered into their constitutive elements. Let us stop and think seriously upon some of the elements of the culture ideal and of the industrial ideal, with a view to learning whether the former is endangered by the latter.

(1) Culture aims at the *refinement* of the whole man, industrialism aims at the *use* of the whole man.

Man is body, soul and spirit—an organism in which he is related to the material and vitalized world about him; a soul which is the seat of the sensations which come through the organism and which works these over in the forms of knowing, feeling and willing; a spirit which is the form in which he transcends the organism and the ordinary processes of mentality and becomes conscious of God, of immortality, of sin, of righteousness, of responsibility, of judgement, and in which he worships.

Culture looks to the development and refinement primarily of the powers of the soul, to the quickening of the mental, moral, esthetic and religious feelings and desires. Industrialism looks to the development and refinement of the powers of the soul which cognize and control the movements of the body. Both are mental, both are improving; but culture puts stress on the soul in its relation with truth, beauty and goodness, while industrialism emphasizes the body in its relations with nature, industry and commerce. Industrialism is, therefore, a diversion of the soul from the primary interests of culture.

(2) Looked at in another way, culture aims at good taste in the realm of *art*, while industrialism looks at good taste in the realm of *mechanics*. Art includes music, sculpture, painting, architecture, land-

scape-gardening, literature, poetry, oratory and histrionics. Mechanics includes all kinds of wood, metal, clay and stone work, invention, draughting and constructing. No line can be drawn between art and artisanship. They overlap. The highest forms of artisanship are found in the realm of art. But there is "art for art's sake;" and there are arts which are never touched by mechanics. Hence, while they overlap they are by no means identical and no one confuses them. Now, by putting emphasis upon mechanics, industrialism is directly menacing to the interests of culture, because it makes art, wherever it touches it, subordinate to usefulness.

(3) Take another look at these aims: culture emphasizes the imagination in the realm of *idealization*, while industrialism emphasizes it in the realm of mechanical *invention*. Houses, bridges, machines and shops cannot be built without the inventive and constructive imagination, and no one would disparage such geniuses of the imagination as Edison and Marconi; but Shakespeare, Beethoven and Angelo are also types of geniuses of the imagination in the realms of poesy, music and sculpture. One enjoys a telephone because it is useful; one enjoys a poem, a sonata, a madonna, because they are beautiful. Edison works his imaging power in the realm of utility,

Tennyson his in the realm of beauty. Of course utility is more useful than beauty, but also beauty is more beautiful than utility. Which means that you cannot compare them, because they belong to distinct realms. You might as well try to compare a moonlight night with a washing machine. And yet the interests of one may be sacrificed for the sake of the other. Industrialism sacrifices the idealizing powers of culture upon the altar of mechanical invention.

(4) Look again; the aim of culture is *recreative*, while that of industrialism is *productive*. Culture entertains, relaxes, restores; while industrialism designs, makes, works. The object of the humanities in an educational system (that is, of the classics and of all literature of any language, of history and of philosophy) is enjoyment, criticism, breadth, sanity and humor. The object of industrialism is physical consciousness and control, the knowledge and use of materials for practical purposes. Culture is, therefore, a proper equipment for the proper employment of leisure moments in ways which relax without weariness, which recreate without exhaustion. At the close of a well fought day in the office, the cultured man can rest while enjoying the pages of a good and inspiring book. He knows how to enjoy a book, and he knows what books to enjoy. He believes in the laborer's creed:

"Eight hours for work; eight hours for sleep; eight hours for what you will." He knows what to do with that last third of his time. The sins of humanity against itself and against God are committed, not while at work or asleep, but during the hours which belong to recreation. A man's education should prepare him to make proper use of that third of each day which is his "for what he will." An equipment for work is good and necessary, but equally good and equally necessary to him and to society is the equipment for relaxation. In the last Report of the Commissioner of Education, A. Sluys, of Brussels, Belgium, makes this significant statement; "Every-day people need relaxation and recreation after daily toil. If not developed esthetically, to a taste for art, they give up to carnal pleasures, and alcoholic potations have an irresistible attraction for them." Can you doubt the truth of this? Then the education which only equips for "eight hours of work," commits a great sin of omission. By training a man for the right use of only half of his waking time, it leaves him stranded for the other half of his waking time. And yet "No man liveth to himself." Around are the forces of the home, the church, society and inside him is personal character. Hence, the oversight of industrial training is partially corrected. But education should aim at the equipment of the whole man, for all

of his time. From a utilitarian point of view a man's working time is his most valuable time; but from an ethical point of view his leisure time is of vast import. Just here I may quote from C. Hanford Henderson, Director of the High School Department of Pratt Institute, Brooklyn, N. Y.; "I cannot sympathize with that present tendency in public education which is attenuating the culture side of our high schools, in order that they may serve more immediate technical and commercial ends. I cannot feel that it is the province of the public high school and of the state that stands back of it, to turn out shop keepers, clerks, bookkeepers or artisans." This plain language from a Manual-Training-School man is found in Popular Science Monthly, Vol. 53, page 779.

(5) There is one more point: Culture aims to fit a man for the proper enjoyment of the leisure which comes with *old age*, while industrialism provides only for a secure and well-endowed leisure. Much that has been said under the previous head will apply here. I may add, however, that educational theories do not have sufficient regard for gray hairs. They do not look forward to the time when "the doors shall be shut in the street, when the sound of the grinding is low, and one shall rise up at the voice of a bird, and all the daughters of music shall be brought low."

Education should provide for a proper growth in youth, a proper usefulness and leisure in manhood, and a beautiful and joyous old age. Here is where culture puts its crowning blessing. To the cultured old man his days are not simply a life of memory and of hope, but days of continuing growth. An education which tends to crystallization is spurious. Nicholas Murray Butler declares that "the power of growth" is one of the evidences of an education. "A human mind continuing to grow and to develop throughout a long life is a splendid and impressive sight. It is an example of what is the lot of every mind whose training is effective. For this growth a many sided interest is necessary, and this is why growth and intellectual and moral narrowness are eternally at war. There is much in our modern education which is uneducational because it makes growth difficult, if not impossible. Early specialization with its attendant limited range both of information and of interest, failure to see the relation of the subject of one's special interest to other objects, the pretense of investigation and discovery before mastering existing knowledge, the habit of cynical indifference toward men and things, turning from the distasteful before it is understood—these all are the enemies of growth, and all are to be shunned while formal education is going on, if it is to carry

with it the priceless gift of an impulse to continuous growth."

Early specialization is one of the tendencies of industrial education. It may not be actively encouraged, but it is the tendency. Inasmuch as it is largely represented in secondary schools, such as Manual Training High Schools and Academies, this tendency is most unfortunate. It is unfortunate because it signifies that at fourteen years of age a boy is placed in an environment which constrains him to the adoption of industrialism as his ideal of life. It may be equally unfortunate to him to be placed in an environment which tends to foster the culture ideal, though I doubt it. The assumption of my subject is, that, if industrial education endangers the culture side of education, then industrialism is so far defective. I assume what the subject assumes, and have pointed out certain elements in which the industrial ideal does menace the culture ideal. In the last number of *The Independent*, while writing upon "The Object of Universities," Prof. Goldwin Smith, of Toronto, says: "The two things which are mutually exclusive are purely scientific or mechanical knowledge, and cultivation of the taste." "Culture in the sense of taste goes with literary studies only." "'Business' is not the whole of life, and the office boy of fourteen, if he develops

solely along that line, will in his later years not be a very noble creature or a partaker of the highest pleasures." Statistics show that about seventy per cent. of the graduates of industrial schools go immediately into business of various sorts and are uniformly successful. That is, without culture and now hopelessly beyond its reach, they are successfully making their way in the world; they will probably have a competency for old age; but will have none of the real growth nor the real joy which culture secures to the aged.

I now close as I began. Industrial education is here. It will stay. But its success is not an unmixed good. Much of its practical value is secured by the sacrifice of other and better ideals. There is yet a problem before us: How can the advantages of industrialism and culture be blended in a theory and practice of education which will be spherical—that is synthetize the interests of the whole man, for all his powers, for the whole of each day, and for the whole of life?

WILLIAM H. BLACK.

SUITABLE LABORATORY PRACTICE FOR EXCEPTIONALLY CAPABLE SECONDARY STUDENTS.

Suitable laboratory practice for exceptionally capable secondary students may have been often discussed, but, if so, it happens that I have never seen the discussion. We generally spend our energies in grappling with the more difficult problem of how to deal with the lazy and incapable students, that, like poverty, we have always with us.

By secondary students I shall assume that we mean those who are using Shepard's chemistry and Gage's physics, the text books required by state law, and I shall confine my illustrations to a few taken from physics and chemistry.

Secondary science classes are often large and if the work is adapted in quantity and quality to the average student, it necessarily follows that the bright fellows will not receive the greatest development possible for them—and this in spite of the fact that each of them may be worth more to society than half a dozen of his mediocre classmates. In such a course the student who can work more rapidly and accurate-

ly than the average, may be injured by having laziness encouraged, or as is more often the case, by acquiring an exaggerated idea of his own ability and importance. I know of few more helpful aids for correcting this trouble than bringing the boy face to face with the eternal verities of nature in a series of well chosen quantitative experiments.

Such a course will encourage the self confidence so necessary to success, and at the same time will discourage over-confidence and harmful self-conceit. In addition to thus opening the eyes of the egotistic and over-confident such a course will invariably encourage the enthusiastic and industrious, will put the right sort of work upon the capable lazy boy, and often will stimulate him into a proper performance of it. The last reason that I will give for assigning laboratory tasks more difficult than those assigned to the majority of the class, is that practice of this sort will often show a bright boy whether or not he really has special aptitude for scientific work, and so should choose for his life work—let us say for illustration—the study of medicine or some form of engineering. I regard this as an extremely important reason, for there are few blunders so dismal as attempting to do one's life work in a field of effort for which one has little aptitude and less enthusiasm.

When I find a boy in my classes who does his work faster and better than the average, I usually say to him in substance, "You have been doing your work well and I want you to try something a little more difficult than will be attempted by the main body of the class." If it is in physics I tell him, "You must first learn to use some of the simpler standard instruments that are found in every laboratory. Read up in the library on the theory of verniers, the vernier caliper and the micrometer caliper. You will find these things discussed in Stewart & Gee, Ames & Bliss, Glazebrook & Shaw and elsewhere. Read everything on the subject that you have time to read."

In the laboratory I have each one make a sketch of the instrument as he uses it and then give him the usual practise, such as determining the volume of a cylinder, the thickness of wires, pieces of foil, etc. Nearly always I try to have the theory of the standard barometer studied and allow practice in reading it with the verniers both in inches and millimeters. Another favorite exercise with me is to have my students study the theory of the chemical balance. I question the one in hand and if he is ready to proceed, I explain why mishandling a balance is such an unpardonable crime—show him how to determine the zero point and how to weigh by oscillations. Then I allow him

to practice with the balance and if time admits to determine its sensitiveness with different loads and to plot the curve.

I am aware that such work is sometimes a little hard on the balance, but it is the making of the boy. The earlier such an experience occurs in the training of a boy or girl the better it is for them. Such an exercise, requiring several hours of attention and careful work, with the accompanying results, is in the nature of a revelation to any bright boy or girl. A revelation that they seldom forget and one that will do more to quicken them mentally than any number of hydrogen explosions or sniffs at a hydrogen sulphide tube. After such an exercise they begin to understand why the balance is so important an aid in the study of physics and is the foundation upon which the entire science of chemistry has been built. Finally a student who has learned to properly use a balance is not likely to abuse a galvanometer or other delicate instrument.

In specific gravity determinations, in addition to the methods mentioned by Gage, I have my students use the Jolly balance and Hare's method because of their quickness and accuracy. For work in heat I have them determine the specific heats of various solids and the latent heats of water and steam as accurately as possible.

In electricity I have limited this extra laboratory practice almost entirely to various more careful measurements of resistances by means of the slide-wire bridge. The resistances taken being of wires, batteries by Mance's method and galvanometers by means of Thompson's method.

In studying sound a favorite exercise with me is to have a student determine the vibration frequency of a tuning fork by several checking methods. I have him take the mean of three to five determinations by means of Savart's wheel, the Siren, a graphical method and sound velocity apparatus. Perhaps I should explain what I mean by "a graphical method" and "sound velocity apparatus." If they have received specific names I am not aware of it. I refer to the piece of apparatus in which a smoked glass plate is drawn underneath an oblique wire which is fastened to one prong of a vibrating tuning fork so as to trace a curve on the glass, on the same axis of vibration at the same time a style attached to a heavy pendulum bob of known period of vibration draws a sinusoidal curve. Then I have the student count with a low power of the microscope, or while projected upon a screen, the number of vibrations traced by the fork within one of the vibrations of the pendulum whose period has been determined. By way of paren-

thesis I may say that my students obtain better results by throwing away the heavy metal style furnished with the apparatus and substituting for it a light glass tube which they have drawn out in a Bunsen flame till it slides easily in a hole in the bob. By the velocity of sound apparatus I mean the glass tube about 1.5m. long and 3 or 4cm. in diameter. Near the top it has a side neck to which a funnel for listening may be attached by means of a rubber tube. The large glass tube is drawn out at the bottom so that a rubber tube will slip over it. Water is poured into the funnel attached to the rubber tube and by raising or lowering it the water may be made to stand at the various heights which give a maximum renforcement of sound. I have briefly described these pieces of apparatus because several teachers who have visited our laboratory happened not to be familiar with these particular forms. With the tube mentioned above it requires little skill to determine wave lengths, and so with three standard forks which my students use to determine the velocity of sound, or the velocity of sound being known, to determine the vibration frequency of a fork. Having obtained the vibration frequency of a fork by these different methods, I have my student check his work by comparing the results he has obtained by the several methods and discuss with him the causes of the discrepan-

cies which generally occur. If any result is quite discordant I allow the experiment to be repeated until it is thoroughly understood and the results obtained are fairly satisfactory. I make it a general rule to encourage repeated trials of unsatisfactory experiments until the results obtained are satisfactory. Yet I have often observed that some of the most valuable laboratory practice that a student gets is in trying experiments in which he has "failed," as he expresses it.

When suitable laboratory practice is sought for in chemistry for the class of students under consideration I am confident that every teacher present will agree that they should be quantitative in their nature. I have already expressed the high value which I place upon early practice with the chemical balance. Following this I have had best success with such simple experiments as determining the amount of oxygen evolved from a given mass of potassium chlorate, the amount of hydrogen liberated when a known mass of zinc is treated with an acid. The analysis of water by electrolysis followed by its synthesis by means of Cn O, and in the eudiometer. The calibration of burettes and pipettes by weighing. You will observe that I have generally selected practice where the results may be reached by more than

one method, thus giving the student an opportunity to check his work. Furthermore I lay great emphasis upon tabulating results and platting curves whenever they are possible.

Of course I know that these quantitative experiments, however simple they may be, demand a considerable expenditure of time, but they are so immensely helpful to the student that this expenditure is amply repaid.

It is necessary for him to work through only a few of these typical experiments in order to catch the spirit of his work and be profoundly and permanently influenced towards the formation of painstaking, accurate, rational habits of work in whatever direction he may exert himself. This view has appealed to me so strongly that frequently when I have found some student quicker and more capable in the laboratory than most of his fellows, I have trusted to his getting the easier experiments through text book and lecture illustration, and have allowed him to spend most of his laboratory hours in working at a few of the more important and difficult exercises. Such a course I grant will not yield the greatest amount of information, but it will yield the greatest amount of "power" and "self-realization" if I may use two of the shibboleths of our profession. JOHN M. PENICK.

THE TEACHING OF HISTORY; ITS PURPOSE.

The study of history requires a close attention to the details of events, their chronology, leading men of the times and contemporary affairs; and yet it is not a memory study. It involves profound problems of philosophy, and yet the benefit to be derived from it is not mental discipline. The memory *is* cultivated and the mind *is* disciplined, but these are not the ends to be attained. History is a culture study in the sense that it is one of the humanities; not in that it makes a classic ideal of the past—as was the case with the Humanists of old—but in that it contains the most "humane" elements of classified knowledge, and comprehends the vital questions of the present. Its mission as a study is to enlarge conceptions by exercising the mind with ideas leading to an understanding of the relation of events, and to develop that within the student which will add to his stature, mentally incidentally, morally and spiritually especially.

Some modern maker of proverbs has said that the history of the world consists of the biographies of a few great men, and judging from most of the textbooks on history it would seem that this fallacy has

been accepted as true. Reigns and administrations, kings and presidents, with their official acts, take up too much space in the texts and too much time of the student. Teaching must amplyfy the text and remedy this defect by emphasizing the real things of history. And what are these real things? Wars, battles and the official acts of governments are of them, but not all of them. Physiography, climate and race are important, but only so in proportion to the force with which they modify the individual or the part he plays in the movements of the age. A few men have towered far above their age in grandeur, but even they are great only because they have the ability to mount to the occasion and the opportunity. The occasion and the opportunity are the important things. The masses behind the men are the power. Great acts are impelled by the heart-throbs of the millions. It is to the millions that we must go to find the embryo of movements and of men. The teaching of history should direct the attention of the student to the people and to the movements that originate with them. It should show the importance of an event by explaining its place in the movement. For some reason (perhaps because the study of history received a new impetus during the most aggressive stage of the era of political revolution) the texts of the present deal well nigh exclusively with political history. Social conditions are

touched upon occasionally, the religion of the present seldom or never. This should give the teacher an opportunity to get outside the text and handle one of the important elements of growth. Dr. W. T. Harris says, "The Hebrew idea adopted into our civilization is the essence of history, because it is at once the cause of our civilization and the measure of it." This from the man who stands at the head of the educational forces in our country; and yet how little attention is paid to religious conditions. How little do we attribute to the inherent power of righteousness! The recent naval battle of Santiago Bay is a magnificent fact, made so by the American fortitude, the American precision, the American character that was behind the guns. The most sublime scene of the day, however, was when Captain Phillips, walking out on the deck of the Texas, viewing the havoc wrought upon the enemy by his own uninjured men, said, "I want to make the acknowledgement that I believe in God, the Father Almighty." Will this speech find its way into a text? In all probability not, but the teacher will find in it material for a lesson higher and holier than the political significance of the destruction of a Spanish fleet.

How many of our students have paid due attention to the wonderful revival of religion in America at

the beginning of the century just past? And if, perchance, they have noticed it, will they see in it a reaction of the French spirit of liberalism which had so permeated our own country that one of our greatest statesmen could point to church in ruins and say, "It is good enough for a God born in a stable?"

And this suggests another purpose of teaching history: to logically interpret the movements of the popular mind, to show that in history, as in physics, reaction is equal to action and opposite to it in direction, and that it is the golden mean of justice and mercy at which the pendulum of human movements will cease vibrating; to show, moreover, that the movements originating with the heart-throbs of humanity have been in the beginning toward that point; and that human lust, human greed and human ambition have carried them to the opposite extreme.

History should be taught with a view to instilling a respect for the past, the motives and purposes of which have so potently modified the present. The arts of Greece, the laws of Rome, the religion of Judea and the Teutonic spirit of liberty are living attributes of all civilizations that have come in contact with them, and the student should see them as such.

Another of the fundamental purposes of teaching history should be to inculcate a reverence for the pres-

ent. The present, not the past, is the olden, golden age; olden with the weight of the centuries which have rightly been numbered from the beginning; golden with the harvest that has sprung from the seeds of human liberty sown through ages of the past and developed by the intense heat of human feeling; golden with the light from the fire of human love enkindled in the hearts of man almost two thousand years ago by the Princely Peasant of Palestine.

With these purposes in view, teaching history will raise the standard of Christian citizenship and decrease the number of the men of the street who "sometimes feel, seldom think, and never comprehend." I. N. Evrard.

Schedule of Recitations.

SCHEDULE OF RECITATIONS—D.

IV. SPRING QUARTER.

HRS.	BLACK	GRUBE	PENICK	GALLOWAY	WALKER
8:00	Apologet T. W. F.			Morphe. Phan. 4	Virgil. T. Th. S.
9:00	Prophets T. W. T.	Anabasis. 5		Botany 4	First Latin 5
10:00		Arist. Soph or Aesch. W. F. Plautus, T. Th,	Ad. Physics 5	Phys. Geog 4	Horace. T. Th. S.
11:00		Euripides. 5	El. Physics 4	Geology. 5	French. 5
1:30		Homer. T. W. F.	Org. Chem. 4		Ad. French T. W. F.
2:30		PrivateLife or Drama T. F. LXX W. S.	Laboratory 4	Animal Physiol. W. S.	
3:30					

SCHEDULE OF RECITATIONS—D—Continued.

IV. SPRING QUARTER.

LAUGHLIN	SHEPHERD	ALLEN	BAKER	EVRARD
	Theism Th. S.			El. Rhet. Th. S.
Astronomy 4	Ad. Elocu. Th. S.	Ad. Germ. Th. S.	First Latin. 5	Ad. Rhet. W. F.
Calculus. 5	Con. Hist. E. W. F. Hist. Civil. T. Th.	Eng. Lit. 5	Prim. Alg. 5	Hist. Eng. T. Th. S.
Solid Geom 4	Ethics. T. Th. S.	Brown. Ten'y W. F.		Gram. Com. 5
El. Algebra 4		Ang. Saxon. T. F. Shksp. Crit. W. S.	Cæsar. 4	
Surveying 2	El. Elocu. 4	German. 4		
Surveying 2			Mythology. 4	

Calendar 1902.

1902	January	22—Day of Prayer of Colleges.
"	February	22—Washington's Birthday.
"	"	26—Winter Quarter Ends.
"	"	27—Spring Quarter Begins.
"	May	18—Baccalaureate Sermon.
"	"	19—Elocutionary Recital.
"	"	20—Classical Concert of School of Music.
"	"	21—Exhibition of School of Art.
"	"	21—Academic Graduating Exercises.
"	"	22—COMMENCEMENT.
"	"	22—Beginning of the Summer Quarter.
"	August	13—Summer Quarter Ends.
"	September	3—Fall Quarter Begins.
"	November	26—Fall Quarter Ends.
"	"	27—Thanksgiving Day.
"	December	25—To January 1, 1903—Christmas Vacation.

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As a proper celebration of the Centennial of the Cumberland Presbyterian Church, the friends of the College will contribute to its endowment $150,000.00 on or before February 4, 1910.

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